

Electric Car Markets in a Time of Uncertainty

An update to the Global EV Outlook 2026

International
Energy Agency



INTERNATIONAL ENERGY AGENCY

The IEA examines the full spectrum of energy issues including oil, gas and coal supply and demand, renewable energy technologies, electricity markets, energy efficiency, access to energy, demand side management and much more. Through its work, the IEA advocates policies that will enhance the reliability, affordability and sustainability of energy in its 32 Member countries, 14 Association countries and beyond.

This publication, as well as any data and map included herein, are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

IEA Member countries:

Australia
Austria
Belgium
Canada
Czech Republic
Denmark
Estonia
Finland
France
Germany
Greece
Hungary
Ireland
Italy
Japan
Korea
Latvia
Lithuania
Luxembourg
Mexico
Netherlands
New Zealand
Norway
Poland
Portugal
Slovak Republic
Spain
Sweden
Switzerland
Republic of Türkiye
United Kingdom
United States

The European Commission also participates in the work of the IEA

IEA Accession countries:

Brazil
Chile
Colombia
Costa Rica
Israel
Romania

IEA Association countries:

Argentina
China
Egypt
India
Indonesia
Kenya
Morocco
Nigeria
Senegal
Singapore
South Africa
Thailand
Ukraine
Viet Nam

Acknowledgements, contributors and credits

This report was prepared by the Energy Technology Policy (ETP) Division of the Directorate of Sustainability, Technology and Outlooks (STO) of the International Energy Agency (IEA).

The project was designed and directed by Timur Gül, Chief Energy Technology Officer. Araceli Fernandez Pales, Head of the Technology Innovation Unit, provided strategic guidance throughout the development of the project. Elizabeth Connelly co-ordinated the analysis and production of the report.

The main authors of the report were (in alphabetical order): Elizabeth Connelly, Mathilde Huismans and Jules Sery. Other IEA colleagues that made valuable contributions to the report include Teo Lombardo and Leonardo Paoli. Lizzie Sayer edited the manuscript.

Laura Cozzi, Director of Sustainability, Technology and Outlooks (STO), provided valuable insights and feedback.

The IEA's Communications and Digital Office provided support in producing the report, providing website materials and promoting it. Thanks go to Jethro Mullen, Maria Ahmad, Isabella Batten, Poeli Bojorquez, Curtis Brainard, Astrid Dumond, Merve Erdil, Grace Gordon, Julia Horowitz, Lucile Wall.

IEA analysis related to electric vehicles is supported by member governments of the CEM Electric Vehicles Initiative.

Table of contents

Executive summary	5
Introduction	7
The 2026 energy crisis has put EVs in the spotlight	7
Trends in global car markets	8
Global car markets are under pressure in 2026.....	8
Electric car sales have grown in more than 90 countries over H1 2026, compared to H1 2025.....	9
Car exports from China continue to expand while those from other major producing regions have stagnated	15
Implications for the global car industry	19
Incumbent car makers are losing market share	19
Automotive component supply chains are changing	21
Employment at risk in incumbent car-making regions	24
Drivers of change and future strategies	26
Annex	31

Executive summary

Electric car sales prove resilient despite a weakening global car market

Road transport and electric vehicles (EVs) have been in the spotlight amid the current energy crisis. Road vehicles account for nearly half of global oil use, making the sector particularly exposed to fuel price spikes and supply disruptions. The sector is also a key driver of oil imports in import-dependent regions. Policy and industry responses to the energy crisis – especially those related to EVs – have the potential to further accelerate changes in a global car industry that is already in flux.

Electric car sales rebounded in the second quarter of 2026, even as global car sales declined. Sales of electric cars were 4% higher year-on-year (y-o-y) and 35% above the first quarter of 2026. As a result, electric car sales in the first half of 2026 were only slightly lower than in the first half of last year, as the increase in second quarter sales almost entirely offset the first-quarter decline. Meanwhile, global car sales were down by around 5% y-o-y in the first half of the year, primarily due to a drop in sales in the world's two largest car markets – China and the United States. Overall, EVs accounted for 24% of global car sales, slightly higher than in the first half of 2025.

Electric car sales are now expected to reach 29% of total car sales worldwide in 2026. In Australia, Brazil, India, Korea and Viet Nam – all sizeable electric car markets – sales have roughly doubled since the beginning of the energy crisis, compared with the same period (March-June) in 2025. Together with strong second-quarter market momentum and policy support for EVs in Latin America, Southeast Asia and Europe, these trends support the expectation that electric car sales will grow around 10% this year, compared to 2025. The pace of recovery of the Chinese car market remains the main constraint on global sales growth. Electric car sales in the country are expected to reach similar levels as in 2025, though the EV sales share is expected to grow to more than 60% in 2026.

Shifting trade flows and intensifying competition are reshaping the global car industry

Surging car exports are partially shielding Chinese manufacturers from declining domestic sales. Total car sales in China declined over 20% y-o-y in the first half of 2026 with around 2.5 million fewer cars sold – equivalent to all cars sold in the United Kingdom and the Netherlands in 2025. In response, Chinese

car exports grew by 65% y-o-y in the first half of the year, helping limit the decline in Chinese car production to around 6% y-o-y. Electric car exports grew even faster, increasing by over 120% and fully compensating for the decrease in domestic electric car sales. As a result, the share of electric cars in China's car exports rose from around 35% in 2025 to more than 45% in the first half of 2026.

The rapid rise in Chinese EV exports is creating new market opportunities and uncertainties. Electric car exports from China have grown faster than overseas sales of those vehicles, with the gap widening more recently; over 1 million electric car exports from China over the last 18 months have not yet been registered as sales in other countries. While shipping times may explain some of this gap, the scale of the difference points to above-norm inventory build-ups in some destination markets. When these cars will be sold, and at what price, remains an important market uncertainty.

Competition is intensifying in the electric car market, where incumbent car manufacturers are less present. Carmakers operating primarily in the internal combustion engine (ICE) vehicle segment still account for around 98% of ICE car sales, but only around 55% of global electric car sales. Chinese carmakers have expanded rapidly both at home and abroad, including in emerging markets, where they hold a particularly high share of EV sales. With China and other emerging economies set to represent 60% of global car demand over the next decade, success in these markets will increasingly determine future market leadership.

Policy, innovation and partnerships will determine future competitiveness

The market success of electric cars is transforming global automotive supply chains and industrial structures. Value is shifting from traditional mechanical components towards batteries, electronics and software, with China occupying a leading position across much of the battery value chain. The rise of software-defined vehicles, pioneered by the EV industry, is also creating new sources of competitive advantage, while increasing pressure on incumbent manufacturers and suppliers to adapt. These shifts have significant implications for employment, supply chain resilience and industrial competitiveness.

China's EV leadership reflects decades of industrial policy, innovation and scale. Chinese manufacturers benefit from integrated supply chains, strong battery capabilities and production costs that are around 35% lower than in advanced economies. Closing the competitiveness gap will require co-ordinated action by governments and industry, including stable demand signals, support for innovation, stronger battery ecosystems and improvements in manufacturing efficiency. Automakers are increasingly using joint ventures and strategic alliances to access technology, battery expertise, manufacturing capacity and new markets.

Introduction

The 2026 energy crisis has put EVs in the spotlight

The conflict in the Middle East beginning on 28 February 2026 and ensuing energy crisis has renewed focus on oil use in road transport as a key energy security concern. Road vehicles account for nearly half of global oil use, making the sector particularly exposed to price spikes and supply disruptions. Such an energy security concern is not new – the oil crises of the 1970s led to the introduction of fuel economy standards in many countries, significantly cutting the average fuel consumption of cars.

Today, electric vehicles (EVs) are in the spotlight as part of potential policy responses, thanks to the opportunity they present to enhance energy security for oil-importing countries while at the same time shielding consumers and businesses from price fluctuations. Several governments – particularly in hard-hit, oil-import-dependent regions like Southeast Asia – have introduced temporary tax breaks for EVs, scrappage schemes and fleet electrification programmes to reduce oil use and buffer future fuel price shocks. Elsewhere, there are signs of a reaction among consumers – for example, Australia's ~34% surge in gasoline prices earlier this year coincided with a near-tripling of electric car sales in April 2026 year-on-year.

While a lag in consumer responses and policy implementation means the full effects will take time to materialise, the crisis has clearly reinforced the case for EVs as a way to address energy security and fuel cost concerns. The 2026 energy crisis may therefore further accelerate ongoing shifts in global car markets towards more electrification. However, these shifts could accentuate economic security concerns and potential job losses in car manufacturing in countries that today have sizeable automotive industries focused on manufacturing internal combustion engine (ICE) cars.

This short report aims to provide market and policy updates from the second quarter (Q2) of 2026 and discusses some of the implications. It builds on findings published in the [Global EV Outlook 2026](#) and the 2025 Energy Technology Perspectives Special Report [What Next for the Global Car Industry?](#)

Trends in global car markets

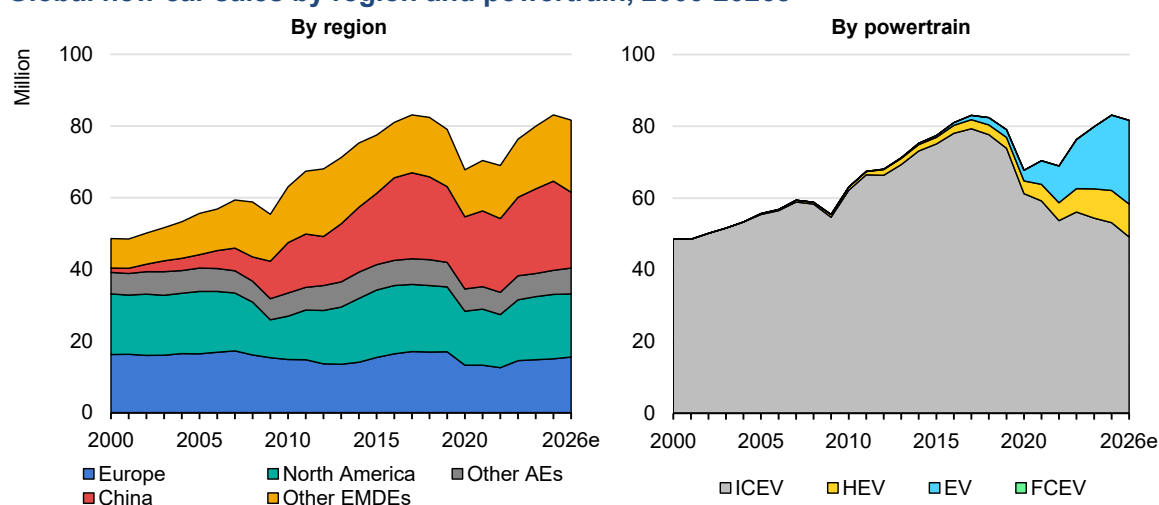
The global car industry is being reshaped by three fundamental and concurrent shifts. The rapid adoption of EVs is at the forefront, as sales surged to record levels in 2025 with one in every four new cars sold worldwide being electric. At the same time, the geography of car markets is in flux. Sales in traditional markets have plateaued, while they rose in emerging markets and developing economies including the People's Republic of China (hereafter, "China"), which together now account for about half of global car sales, up from just one-fifth at the start of this century. The third shift is in the location of car manufacturing hubs and trade flows: China's output has increased by more than 50% during the past decade, propelling it to become the world's largest car exporter in 2024 as output in many advanced economies stagnated. Collectively, these three shifts mark a pivotal moment for the automotive sector, and the extent and pace of electrification will be especially critical in shaping the industry's future trajectory.

Global car markets are under pressure in 2026

At the global level, car sales rose for decades until 2017, interrupted only by the fallout of economic crises. After 2017, however, total sales started to decline, gradually at first and then dropping precipitously during the Covid-19 pandemic in 2020. Sales resumed their upward trajectory from 2021, with the recovery in global sales being driven exclusively by electric cars and hybrids. This marks a major technological transition away from pure ICE vehicles.

Across the first six months of 2026, however, global car sales have been under pressure, and the general expectation is for 2026 to register a decline relative to 2025. Two key markets are driving this trend. The first is China, the world's largest car market, which saw a decline in total car sales in the first half of 2026 of over 20% according to the China Passenger Car Association (CPCA), relative to the same period of 2025. In addition to broader macroeconomic pressures, changes in policy are contributing to declining car sales in China: at the beginning of 2026, China's previous trade-in scheme was updated with a reduction in the subsidy available for the most affordable cars. At 30% year-on-year, the drop in sales during H1 2026 was larger for conventional cars than for electric cars, for which sales fell by less than 20%. The CPCA [expects](#), as of mid-June 2026, car sales in China to be 14% lower than in 2025. However, there is significant uncertainty, with other industry [stakeholders](#) and [analysts](#) expecting anything from a 3% to a 20% decline across the full year.

Global new car sales by region and powertrain, 2000-2026e



IEA. CC BY 4.0.

Notes: ICEV = internal combustion engine vehicle; HEV = hybrid electric vehicle; EV = electric vehicle; FCEV = fuel cell electric vehicle; AEs = advanced economies; EMDEs = emerging markets and developing economies. "HEV" includes only full hybrid electric cars (FHEV). "ICEV" includes both conventional ICE cars and mild-hybrid electric cars (MHEV), typically featuring 48V hybrid powertrain architectures. 2026 sales ("2026e") are estimated based on market trends through the first half of 2026. See [Annex](#) for regional groupings.

Sources: IEA analysis based on data from [Marklines](#) and [EV Volumes](#).

The second major driver of the expected global decline in total car sales is the United States, which saw total car sales fall by over [3%](#) year-on-year in the first half of 2026, despite a rebound in May and June. Across the full year, car sales in the United States are expected to be close to [3% lower](#) than in 2025.

Electric car sales have grown in more than 90 countries over H1 2026, compared to H1 2025

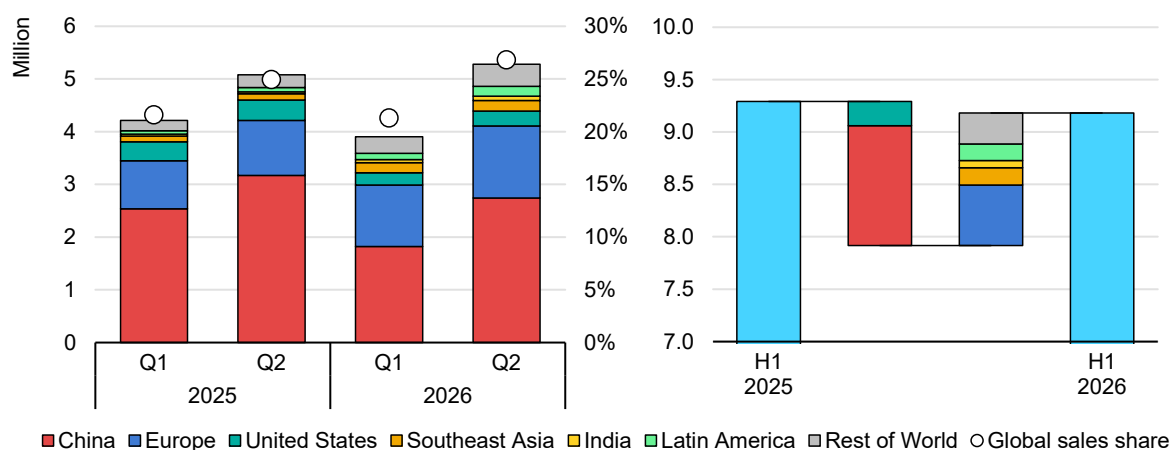
Second-quarter 2026 electric car sales grew 4% year-on-year and 35% compared to the first quarter

Over 9 million electric cars were sold worldwide in the first half of 2026, with more than 5 million sold in the second quarter alone. Global second-quarter sales were 35% higher than first-quarter sales in 2026, but were not sufficient to compensate for the decline in the first quarter: across the first six months of 2026, global electric car sales were around 1% lower compared to the same period of 2025. Despite more than 90 countries seeing higher year-on-year sales, the almost 20% drop in electric car sales in China strongly impacted global sales volumes.

While electric car sales dropped at a global level, their share in overall car sales remained strong, including in China, where electric cars represented over 60% of

total car sales in the second quarter of 2026, compared to less than 55% across 2025. Globally, across the first half of 2026, electric cars represented 24% of all cars sold, 1 percentage point higher than in the first half of 2025.

Electric car sales by region during the first half of the year, 2025-2026



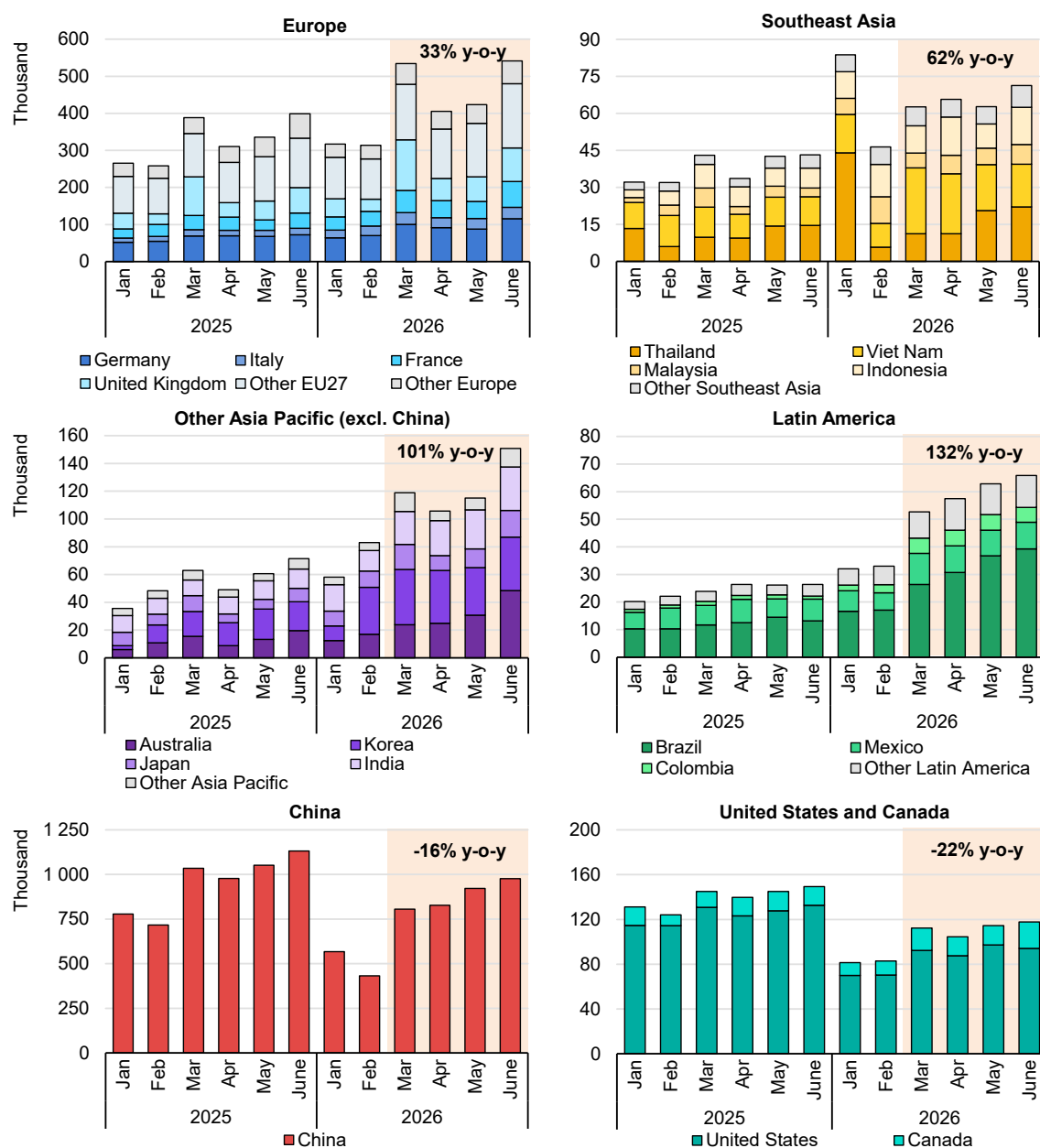
IEA. CC BY 4.0.

Note: Q = quarter; H = half.

Source: IEA analysis based on data from [EV Volumes](#).

Europe recorded the strongest growth in electric car sales of the major EV markets during the first half of 2026. Second-quarter electric car sales were higher than those in the first quarter, resulting in 2026 H1 sales being 30% higher than those in the first half of 2025. Countries with particularly strong sales across the first six months of 2026 include Germany, where 140 000 more electric cars were sold than over the same period of 2025, the United Kingdom (+100 000), France (+95 000), Italy (+75 000) and Spain (+40 000). Across the European Union, electric car sales have grown to represent more than 30% of total car sales during the first half of 2026, compared to 27% in 2025. The EV sales share in the United Kingdom has also grown, to 38% in H1 2026.

Monthly electric car sales across the first half of the year, 2025-2026



IEA. CC BY 4.0.

Notes: Y-o-y = year-on-year, where the growth in electric car sales between March and June of 2026 is shown relative to those months in 2025. See [Annex](#) for regional groupings.

Sources: IEA analysis based on data from [EV Volumes](#), [ACEA](#) and [CPCA](#).

In the United States, second quarter electric car sales exceeded 275 000, representing a 20% increase compared to the first quarter of 2026. However, sales were about a quarter lower than Q2 2025, in part due to the ending of the US federal tax credit at the end of the third quarter of 2025. While monthly sales picked up in March 2026, compared to in January and February, sales shares averaged 7%, lower than the average of 10% across 2025.

Outside of the major EV markets, electric car sales in H1 2026 were around 75% higher than in H1 2025. Growth was even higher when comparing the months following the start of the energy crisis: electric car sales from March to June 2026 were more than 80% higher than those during the same period of 2025. Notably, in a number of other sizeable electric car markets: Australia, Brazil, India, Korea and Viet Nam – where sales reached more than 100 000 in the first half of 2026 – sales have roughly doubled in the period since the beginning of the energy crisis, compared with the same period (March-June) of 2025. Smaller markets have also seen remarkable year-on-year growth over this period, including Colombia (+300%), New Zealand (+180%), Singapore (+110%) and Uruguay (+170%).

As a result, electric car sales in Latin America more than doubled in H1 2026 compared to the same period of 2025 and increased by around 130% when comparing March-June. Sales across Australia, Korea and New Zealand also doubled year-on-year during the first half of 2026. In India, H1 sales were up over 90%, and in Southeast Asia, H1 sales were 75% higher in 2026 than in 2025. In Africa, sales more than doubled, reaching over 30 000, with sales in South Africa growing more than fivefold and sales in Egypt more than threefold.

Policy responses to the energy crisis include support for EVs

Following the start of the conflict in the Middle East, a number of countries have implemented [response measures](#) aimed at reducing transport energy demand, especially in the near-term. These measures have included fuel rationing, promotion of teleworking, carpooling and the use of public transport, as well as increased biofuel blending with gasoline and diesel.

In addition, some countries have recently announced policies aimed at more structural changes that would support the adoption of EVs over conventional ICEVs. For instance, countries including the [Netherlands](#) and [Ireland](#) have announced scrappage schemes through which consumers are incentivised to trade in relatively old conventional cars for the purchase of a new electric car. Other countries, such as the United Kingdom and Australia, have included EV charging infrastructure support as part of their emergency responses. Nevertheless, most announced EV-related policies focus on promoting near-term adoption. However, China's [Ministry of Transport](#) has set a 2030 target for electric trucks to reach 40% of heavy truck sales in the country.

EV-related policy announcements since the start of the conflict in the Middle East

Country	Date announced	Policy description
Asia Pacific		
Australia	12 May	A fuel resilience package includes tax benefits for electric cars and funding to roll out kerbside fast chargers and accelerate the electrification of Australia's postal delivery fleet.
Cambodia	29 March	Reductions in customs tariffs and export-import duties were introduced for selected items including EVs and charging equipment.
Lao PDR	13 March	Prime Ministerial Order No. 40/PM and subsequent Memorandum of Understanding aims to promote the nationwide use of EVs.
Lao PDR	12 May	The government is temporarily suspending the import of fuel-powered vehicles until the end of 2026 and introducing EV tax incentives.
Thailand	20 April	The government is providing THB 5 billion (Thai baht) for a soft loan programme , including for EV purchases.
Viet Nam	14 April	The government is drafting a resolution to extend preferential excise tax rates for EVs through the end of 2030.
Europe		
European Union	17 July	The European Commission presented an Electrification Action Plan aimed at accelerating cost-effective electrification across transport, industry and buildings. Actions related to road transport electrification include strengthening public procurement, supporting accelerated roll-out of charging infrastructure and enabling vehicle-to-grid charging.
France	10 April	Public funding for electrification will increase from EUR 5.5 billion to EUR 10 billion per year by 2030, which includes the renewal of the social leasing programme for electric cars.
Hungary	19 June	The revised Recovery Plan includes a component on sustainable transport which includes objectives related to deploying zero-emission buses, supporting company uptake of EVs and financing the roll-out of EV charging stations.
Ireland	3 June	The ICE2EV pilot scrappage scheme offered EUR 5 000 for 2 000 eligible applicants scrapping ICEVs first registered in 2013 or earlier, to be used for the purchase of a new battery electric car.
Netherlands	20 April	A trade-in scheme is being introduced for individuals with low incomes who wish to trade in their petrol or diesel car for a second-hand electric car.
Spain	20 March	Income tax deductions for the purchase of electric and fuel cell vehicles and the installation of charging points have been extended until 31 December 2026.
United Kingdom	21 April	Plans to introduce legislation to increase EV charging provision in new buildings and those undergoing major renovations, as well as to give renters and leaseholders greater access to charging by making it easier to request and install charge points.
Africa		
Kenya	22 May	Presidential announcement that 100 000 EVs will have import duties waived.
Rwanda	14 April	Government of Rwanda directive requires all public institutions to ensure that at least 30% of newly procured vehicles are electric.
Americas		
Brazil	23 June	The government approved additional zero-tariff import quotas for CKD and SKD electric and hybrid vehicle kits for a period of six months beginning from 1 July 2026.
California, United States	13 July	The Governor of California signed a bill that creates a new instant rebate programme for zero-emissions cars and is part of a broader USD 600 million investment in clean transportation.
Chile	23 March	The Chile Moves Forward Plan includes preferential credit for taxis and buses to switch to EVs.

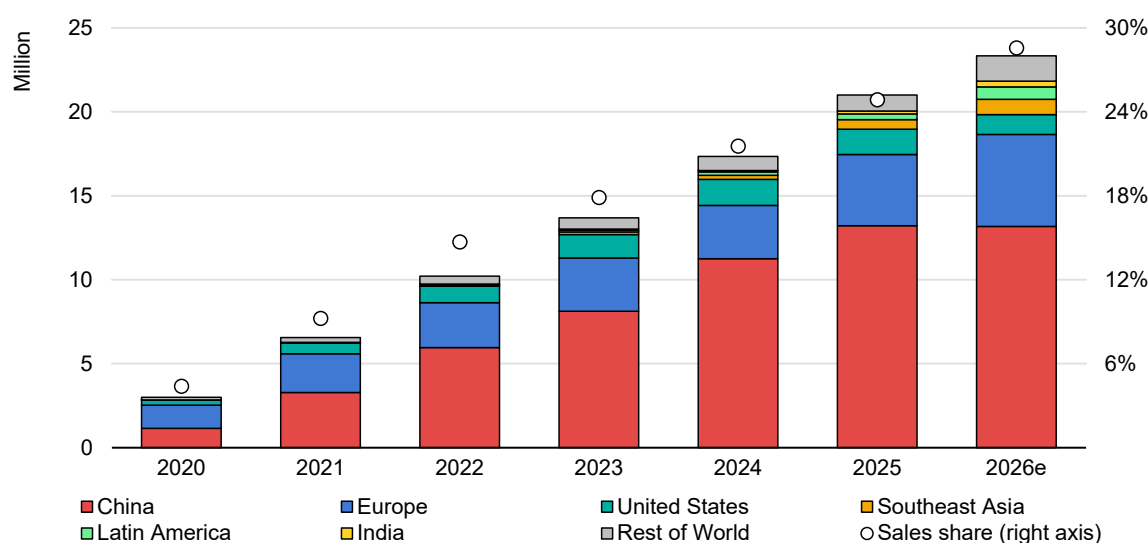
Note: CKD = complete knockdown; SKD = semi-knockdown.

Regional dynamics have shifted slightly in a weaker car market, but global EV sales are expected to continue to grow in 2026

Uncertainty is the watchword for global car markets for the remainder of 2026, as the combination of economic pressures in key car markets, cost pressures on the car industry and the prospect of continued volatility in fuel prices cast doubts over the pace at which global car sales could recover. Overall, we expect car sales to rebound somewhat over the second half of the year, but – over the course of 2026 as a whole – to remain around 2% below the level reached in 2025. Global electric car sales, meanwhile, are expected to grow around 10% in 2026, reaching 23 million and a share of 29% of total car sales. This represents an upward revision of the global EV sales share by 1 percentage point from the estimate published in the [Global EV Outlook 2026](#) (GEVO-26) in May 2026, although the overall global growth is similar.

This upward revision reflects strong market momentum in some of the newly emerging electric car markets during the second quarter of 2026, including in Latin America, Australia and New Zealand, India, and, to a lesser extent, Southeast Asia. Policy support in these markets and in Europe also plays a role. Further global growth is held back by the overall decline in the car market in China; expected 2026 electric car sales have been revised down from the estimate released in GEVO-26, to reach similar sales volumes as in 2025 (13.2 million). Nonetheless, the expectation is for EV sales to represent more than 60% of car sales in China across the full year, a new record.

Global electric car sales by region, 2020-2026e



IEA. CC BY 4.0.

Note: 2026e = expected sales in 2026.

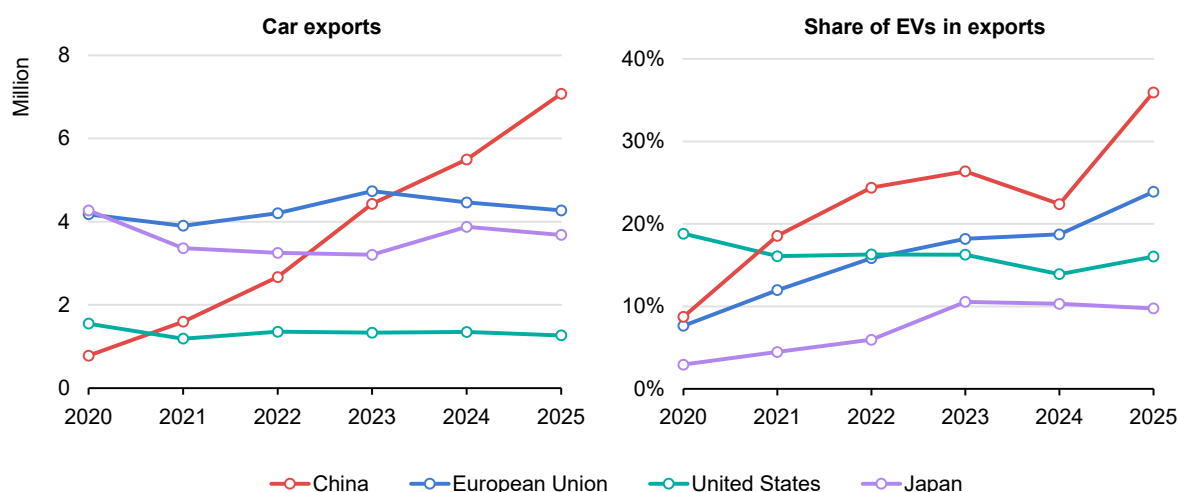
Sources: IEA analysis based on data from [EV Volumes](#), [ACEA](#), [EAFO](#) and country submissions.

Car exports from China continue to expand while those from other major producing regions have stagnated

In 2025, the number of cars produced in China reached around 30 million – 10% higher than 2024 and over two-and-a-half times the production levels in 2010. As a result, China's share of global car production exceeded 35% in 2025, up from less than 20% in 2010. Meanwhile, the European Union represented less than 15% of global car production in 2025, down from around 23% in 2010. North America, on the other hand, has maintained a similar share of global car production to 2010, at less than 20%.

In 2023, although China produced over twice as many cars as the European Union, car exports were similar. However, after overtaking the European Union to become the world's largest car exporter in 2024, China exported over 65% more cars than the European Union the following year. China is the only major car-producing region that has seen significant growth in car exports this decade, as growth in car production (+50%) has exceeded growth in domestic car sales (+25%).

Total car exports and share of electric cars in exports by region, 2020-2025



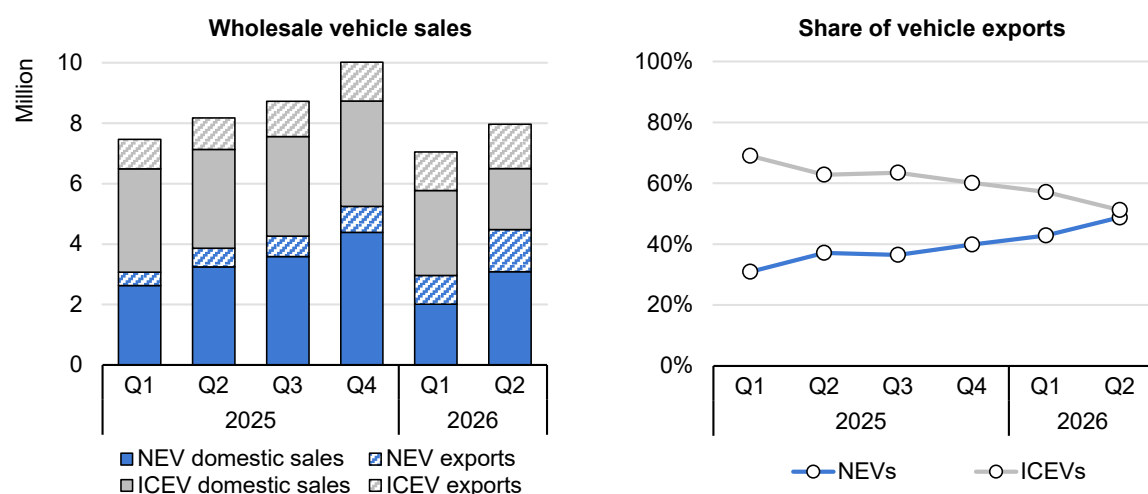
IEA. CC BY 4.0.

Sources: IEA analysis based on data from GACC, [CAAM](#), Eurostat, JAMA, and [USITC](#).

Car exports from China grew 65% over the first half of 2026 compared to the same period the previous year, as OEMs looked to overseas markets to help compensate for lower domestic sales. By the end of June, Chinese car exports had reached over 5 million since the start of 2026, whereas exports during the same period of 2025 were closer to 3 million. As a result of this growth, car

production in China fell only around 6% year-on-year over the first half of the year, despite domestic car sales falling by over 20%. Exports of ICE cars grew more slowly than electric car exports and, as a result, the share of electric cars in China's car exports increased from over 35% in 2025 to over 45% in H1 2026. Notably, electric car exports from China have grown over 120% over the first six months of 2026, fully compensating for the decrease in domestic electric car sales. Meanwhile, ICE car wholesales were down roughly 15% during the first half of 2026, as increased exports did not fully compensate for depressed domestic sales.

Domestic vehicle sales and exports from China, 2025-Q2 2026



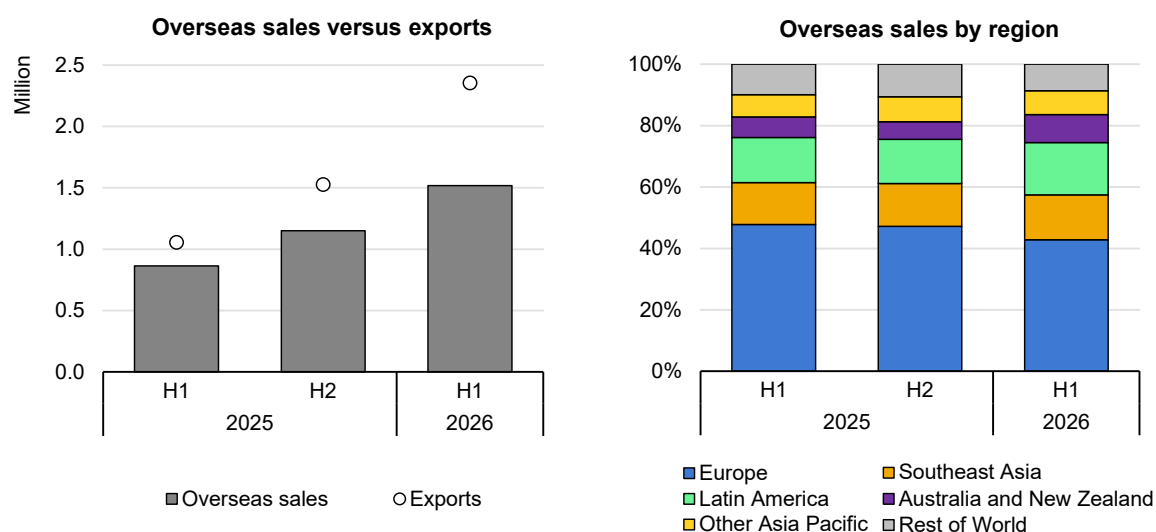
IEA. CC BY 4.0.

Notes: Q = quarter; NEV = new energy vehicles (includes battery, plug-in hybrid and fuel cell electric vehicles); ICEV = internal combustion engine vehicle (includes non-plug-in hybrid electric vehicles). Wholesale sales refer to factory-level shipments by automakers to dealers and other distribution channels, including vehicles for export.

Source: IEA analysis based on data from China Association of Automobile Manufacturers ([CAAM](#)).

Exports of electric cars from China have increased faster than sales of those cars, rising more than 120% year-on-year versus just 75% during H1 2026. We estimate that, across the last 18 months, over 1 million electric car exports from China were not yet registered as sales in other countries. While it can take months for car-carrying vessels from China to reach their destination markets, it is likely that, given the sheer number, there are also inventories of electric cars from China building up in various export markets.

Electric car exports from China and overseas sales by region, 2025-H1 2026



IEA. CC BY 4.0.

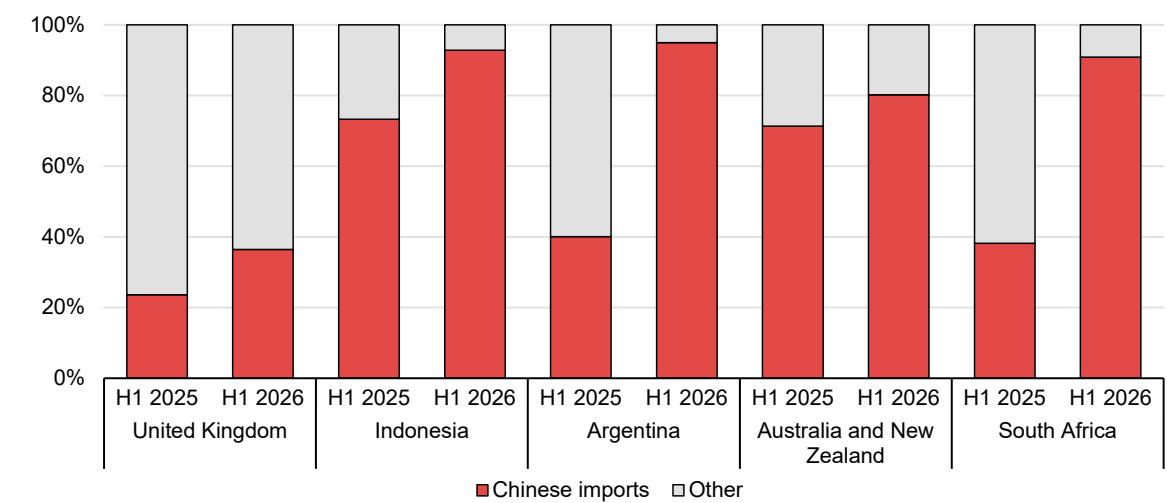
Note: H = half. Estimates of June 2026 sales are used to fill data gaps; when combined for relevant countries, this represents less than 15% of the monthly overseas sales of Chinese exports.

Sources: IEA analysis based on data from CAAM and [EV Volumes](#).

Chinese imports have accounted for a rising share of total electric car sales in several markets over the first half of 2026. While they have held fairly steady in the European Union in H1 2026, at around 20%, Chinese imports have continued to grow in the United Kingdom, particularly driven by increased sales of Chery and BYD models.

Outside of Europe and the United States, electric car imports from China represented 55% of total electric car sales, and in some cases have been driving up sales growth. In South Africa, electric car sales increased around sixfold year-on-year across the first half of this year, and Chinese imports grew to represent 90% of all the new electric cars sold in the country. Similarly, in Argentina, electric car sales have been accelerating ever since BYD entered the market in 2025. Electric car sales in Argentina reached around 9 000 during the first half of 2026 alone, compared to less than 2 200 across all of 2025, with BYD imports alone representing close to 90% of sales so far this year. Although the share of Chinese EV imports in Australia and New Zealand has only increased modestly, from 70% to 80% from H1 2025 to H1 2026, Chinese import volumes have grown 140% year-on-year – faster than electric car sales have grown in the region.

Share of Chinese imports in electric car sales during the first half of the year in selected markets, 2025-2026



IEA. CC BY 4.0.

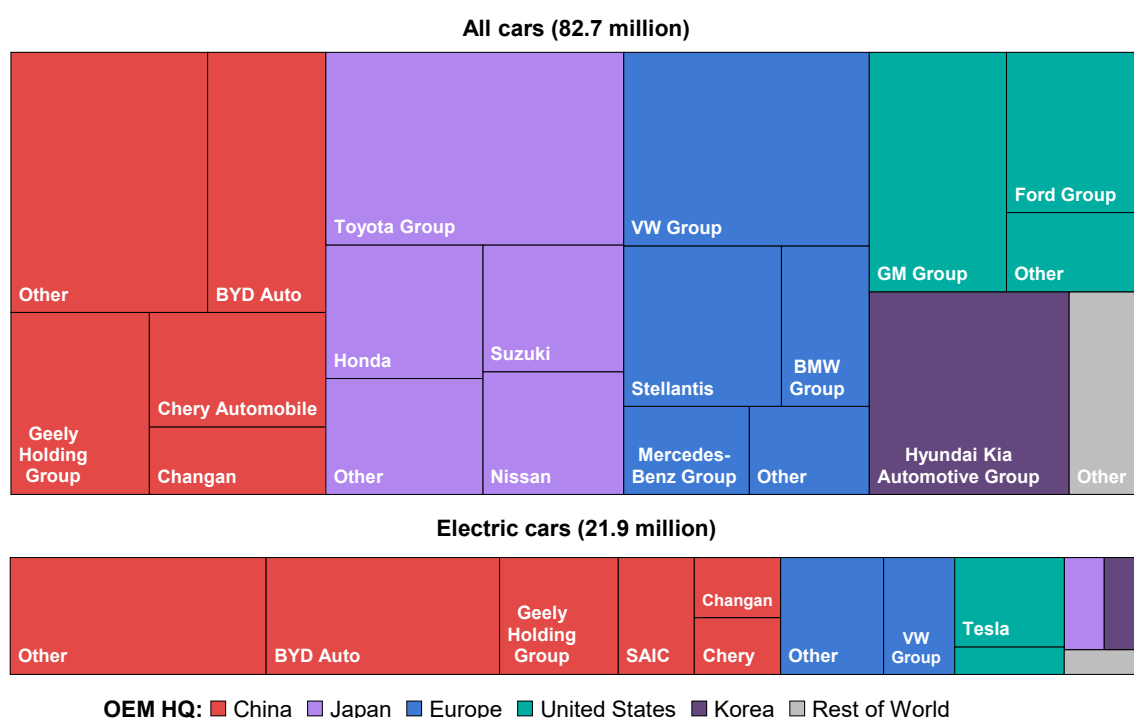
Notes: H = half. June 2026 imports for Argentina and South Africa are estimated.
Source: IEA analysis based on data from [EV Volumes](#).

Implications for the global car industry

Incumbent car makers are losing market share

The drop in global car sales during H1 2026 has exacerbated pressures on the car industry that have been building up over the past couple of years, driven by regional shifts in global car markets along with the strong increase in electric car sales. Incumbent OEMs operating primarily in the ICE vehicle segment continue to dominate car sales, accounting for close to 90% of sales worldwide. However, they only accounted for about 55% of the fast-growing electric car sales segment in 2025. Relatively new entrants that are focused on EV production captured around 45% of global EV sales in 2025, up from less than 35% in 2019. Electric car sales continue to grow, and are projected to reach around 50% by 2035 based on the policies in place today. Incumbent carmakers therefore appear set to face challenges from OEMs that are favoured in the EV segment when it comes to future market shares.

Global car production by carmaker group and headquarters, 2025



IEA. CC BY 4.0.

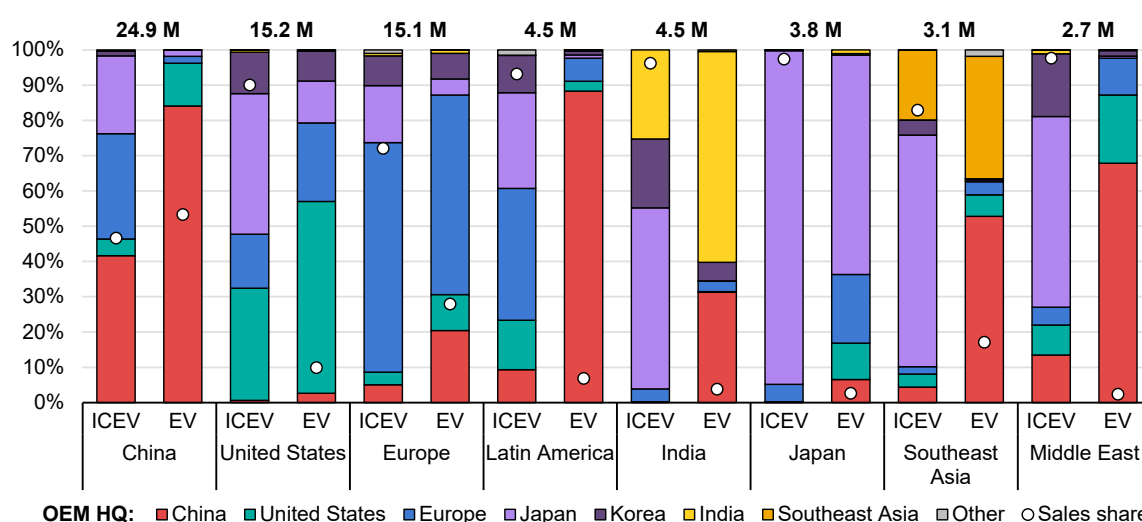
Note: OEM HQ = original equipment manufacturer headquarters.

Source: IEA (2026), [Global EV Outlook 2026](#).

The rapid growth of China's car market over the past two-and-a-half decades has underpinned global regional shifts in car sales; in 2025, China was responsible for 30% of global car sales, up from just 2% in 2000. The more recent rise of Chinese OEMs in the Chinese market means that they have now captured around 25% of new car sales worldwide.

Electric car sales now exceed conventional car sales in China, and so the market share of Chinese OEMs – predominantly EV makers – has squeezed that of foreign OEMs operating in the country. Japanese OEMs have seen their market share in China fall from over 20% in 2019 to 12% in 2025, and the market share of European OEMs in China fell from around 25% to 15% over the same period.

New car sales by location of carmaker headquarters and powertrain in selected regions, 2025



IEA. CC BY 4.0.

Notes: OEM HQ = original equipment manufacturer headquarters; ICEV = internal combustion engine vehicle, which here includes non-plug-in hybrids; EV = electric vehicle, including battery electric and plug-in hybrid electric. Total 2025 new car sales per region are shown along the top. Sales share refers to the powertrain share in total new car sales. Most sales by foreign OEMs in China are part of joint ventures with Chinese firms, which prior to 2022 was a requirement to enter the market. See [Annex](#) for regional groupings.

Sources: IEA analysis based on [Marklines](#) and [EV Volumes](#).

The majority of sales by Chinese OEMs are made in the domestic market, but they are also seeing success in overseas EV markets. Despite Chinese OEMs selling more conventional cars overseas than electric cars in 2025, they commanded a far greater market share of overseas electric car sales (close to 25%) than overseas conventional vehicle sales (5%). In Latin America, which represents around 5% of global car sales, Chinese OEMs have captured almost 90% of the growing electric car market, far higher than their share in the conventional vehicle market (less than 10%). Similarly, Chinese OEMs are successfully selling electric cars in the Middle East, Southeast Asia and India. Across emerging markets and developing economies (EMDEs) other than China, Chinese OEMs represent 60%

of electric car sales, compared to 10% of conventional car sales. In some markets, such as in Southeast Asia and India, domestic EV makers also hold significant shares of the growing electric car market. In Southeast Asia, for example, electric cars grew to represent around a quarter of total car sales in H1 2026, of which 55% were from Chinese OEMs and 30% by VinFast, an EV maker from Viet Nam.

These markets are increasingly important for the global car industry: China and other emerging economies are projected to represent almost 60% of global car sales by 2035. As such, the prospect of increasing EV sales alongside the growing success of new market entrants – especially EV makers – in EMDEs could have important implications for the traditional OEMs that have previously dominated conventional car sales in these markets. Japanese OEMs, for example, are particularly present in the conventional car market in India (50%), Southeast Asia (65%), the Middle East (55%) and Latin America (25%), but hold negligible shares of the electric car market in these regions. Similarly, European OEMs represent 35% of Latin America's conventional car market, but only around 5% of its EV market. The success of EV makers from China and other emerging producer countries in these markets could echo the success of Chinese OEMs in the Chinese market, with similar implications for incumbent OEMs.

In line with these ongoing changes, the inflation-adjusted revenues of the world's 26 largest carmakers have decreased since 2018. In 2025, automaker revenues declined 2% after a 4-year-long period of growth. Meanwhile, total industry profits fell 65%, largely driven by profit losses at European and North American OEMs, which were not offset by an increase in the profits of Japanese OEMs. Global profits dropped below levels last seen in 2020, when automotive markets worldwide were severely disrupted by the pandemic. However, in this instance, the drop in profits is attributable to accounting adjustments rather than a drop in sales volumes.

However, despite increasing competition, incumbent OEMs retain several enduring advantages, including deep brand recognition, global distribution networks, and strong positions in premium segments, where margins are highest and competition is less intense. Importantly, they continue to dominate ICE sales, which are likely to remain substantial for some time.

Automotive component supply chains are changing

The market success of electric cars in recent years is reshaping car manufacturing processes more broadly. Vehicle component supply chains have historically been regionally clustered systems centred around mechanically engineered parts for ICE vehicles. They are now shifting to highly globalised, battery-centric networks dominated by materials, electronics and chemistry – with China currently at the

core. This transition creates both risks for incumbent suppliers and opportunities for new entrants and regions able to build competitive battery supply chains.

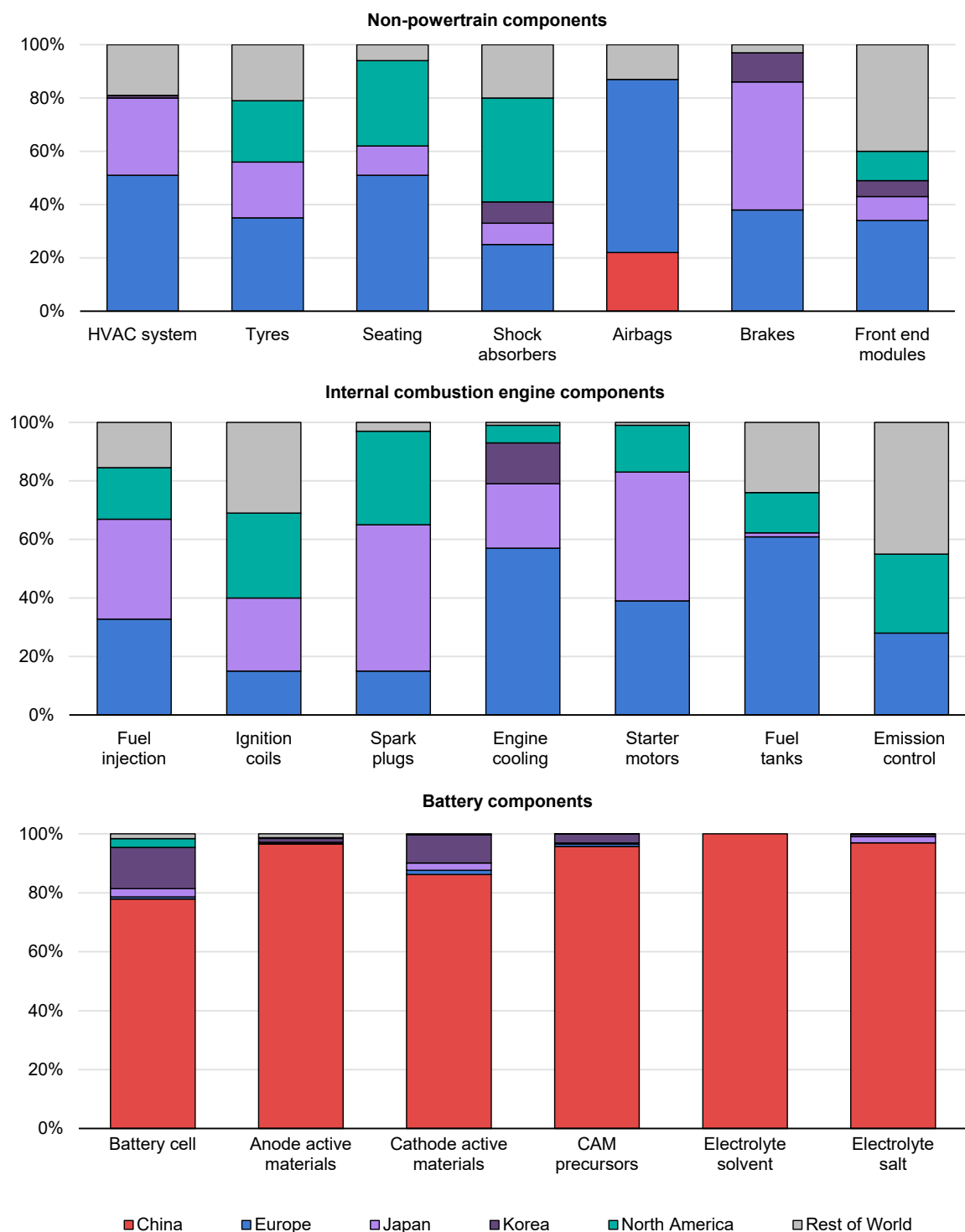
In particular, EVs require very different components to ICEVs, leading to reduced demand for traditional components such as engines and gearboxes, and increased demand for batteries, electronics and critical minerals. Around one-quarter of an electric car's value relates to its battery, which is the key factor determining its difference in cost to an ICE vehicle. EV-specific components represented only 10% of the automotive supplier market in 2024, but their share has grown nearly sevenfold since 2019. ICE-specific components hold 20% of the market. Traditional Tier 1 (component) and Tier 2 (parts) suppliers remain important for non-powertrain components, which still account for the rest of the market, but these suppliers face pressure in powertrain segments.

Supply chains for batteries are highly concentrated geographically, especially in China, which dominates production of battery cells and upstream components, and is the leading exporter of EV-related components. This concentration increases exposure to [risks](#) such as export controls or supply disruption.

The restructuring of supply chains is also shifting where economic value is created; regions with battery capabilities stand to capture more value from EV production, and regions that remain dependent on battery imports, such as the European Union, may lose value. As a result, governments and firms are now seeking to diversify supplies and to boost domestic production, although there can be a trade-off with cost-competitiveness, at least in the initial stages. Nevertheless, most value still lies in vehicle assembly and non-powertrain components, limiting the economic impact of partial import dependence.

At the same time, the transition to EVs is accelerating another structural shift: a move towards software-defined vehicles (SDVs). Battery electric vehicles (BEVs) are mechanically simpler than ICEVs and hybrids, making them more compatible with digitalisation and automation, and pure-play EV makers have pioneered the development of SDVs, in which a growing share of vehicle functionality is controlled and improved through software. Manufacturers can use over-the-air updates to deploy new features, performance improvements, battery-management refinements and cyber-security patches across a vehicle's lifetime. This shift creates new opportunities around software, semiconductors, sensors and connected services, but also adds pressure on incumbent suppliers and automakers to adapt their development processes, partnerships and capabilities beyond traditional mechanical engineering.

Global market or manufacturing capacity share of selected car components, by company headquarters



IEA. CC BY 4.0.

Notes: CAM = cathode active material; HVAC = heating, ventilation, and air conditioning. Regional allocation is based on company headquarters. Non-powertrain and internal combustion engine components refer to market share (2023) for the largest suppliers of each component. Battery cells and components refer to manufacturing capacity share (2024).

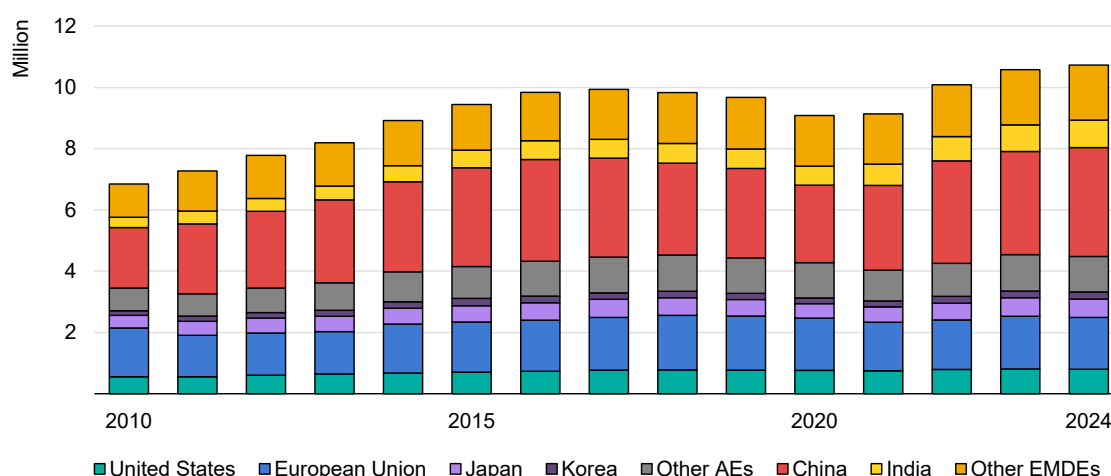
Source: IEA (2025), [What Next for the Global Car Industry?](#)

Employment at risk in incumbent car-making regions

The car manufacturing industry is a major employer, with a workforce of more than 10 million globally, which only adds to its significance for policy makers. Employment is concentrated in major car-producing regions, especially China and the European Union, which together account for nearly half of global car employment, production and value added.

A higher concentration of employees, however, does not equal higher production or gross value added. Nearly 60% of employees are based in EMDEs, which capture 50% of global production and 40% of gross value added. This reflects the importance of labour-intensive vehicle component manufacturing in these economies, as well as a lower level of automation.

Car manufacturing employees by region, 2010-2024



IEA. CC BY 4.0.

Notes: AEs = advanced economies; EMDEs = emerging markets and developing economies. Employment in “car” manufacturing includes a subset of ISIC Division 29, as well as an estimate of electric vehicle battery manufacturing jobs (from ISIC Division 27) – see the source below for details. Figures for 2024 are estimated for some countries.

Source: IEA (2025), [What Next for the Global Car Industry?](#)

Automation, robotisation and the integration of artificial intelligence (AI) are reducing the need for lower-skilled and repetitive tasks in car manufacturing. While these technologies create demand for some higher-skilled roles, these are typically fewer in number, potentially resulting in a net reduction in employment. High automation of production can help countries with higher labour costs to remain competitive on the global market. In 2021, Korea had the highest [robot density](#) in the automotive industry, with 1 robot for every 3.5 employees, nearly twice as many as in Germany, Japan and the United States (over 6.5 employees per robot), and almost 4 times higher than in China (13 employees per robot), although China is [catching up](#).

In addition to “direct” employment, such as in car assembly, the industry generates “indirect employment”, for example in upstream industries like steel, and services like retail or marketing. In 2023, Japan’s automotive industry employed almost 900 000 people, and as many as [1.4 million](#) when including materials and equipment supply.

Employment remains highly geographically concentrated in [clusters](#), such as Detroit in the United States, Nagoya in Japan, and Shanghai in China. This clustering can reduce logistics costs and support specialised labour pools, but can also leave some regions highly dependent on jobs in the sector, increasing vulnerability to localised economic shocks if production moves elsewhere.

As a result of the shifts underway in the car market, some traditional OEMs, for example those in Europe, have announced significant layoffs in recent years. In 2026 Volkswagen indicated that it may need to cut a [further 50 000 jobs](#) by 2030, in addition to the 50 000 reductions [previously announced](#) (of which 37 000 have been already made), citing cost pressures and vehicle oversupply in the European market. Similarly, Ford, GM and Stellantis [have already cut](#) a combined 20 000 jobs this decade in the United States. Generally, these OEMs have attributed the layoffs to technological changes in the automotive industry, linked to the rise of software-defined vehicles, autonomous vehicles and EVs, and AI.

The overall impact of EV market uptake on employment in different regions is uncertain, but it will depend heavily on supply chain localisation and success in building domestic EV manufacturing ecosystems, as well as the pace of automation.

Drivers of change and future strategies

For decades, Chinese policies have targeted building an EV industry and market, powered by battery innovation

China's emergence as an EV powerhouse is rooted in two decades of sustained and comprehensive industrial policy, which fostered domestic market creation, manufacturing scale, and innovation. EVs were featured in national industrial development plans as early as [2001](#), setting the vision for a domestic industry to reduce oil import reliance and challenge foreign dominance in the automotive sector. From the late 2000s onward, China rolled out multiple policies to cultivate EV supply and demand, including [multi-city demonstration programmes](#), consumer purchase subsidies, tax exemptions and local incentives (like privileges in major cities) to spur early EV adoption. By mandating fleets of “new energy vehicles” (NEVs), supporting public procurement of electric buses and expanding charging infrastructure, authorities jump-started a domestic EV market. In addition, supporting regulations such as [fuel economy standards](#) were refined, and a [NEV credit](#) mandate was implemented, which effectively required automakers to increase the share of NEVs in their domestic passenger car sales. As a result, growing EV adoption has supported a number of China's policy priorities around industrial development, air pollution reduction and energy efficiency – especially with a view to reducing oil imports.

China's approach has combined demand stimulus with strong supply-side support. The government offered [low-cost financing](#) and subsidies to domestic electric car and battery manufacturers, encouraged [joint ventures](#) between foreign and domestic firms that promoted technology transfer, and supported the development of NEV industrial clusters with integrated supply chains. Ambitious targets (such as [5 million NEVs by 2020](#)) and consistent policy signals attracted investment, and innovation policy focused on battery technology to ensure China's competitive edge. R&D programmes and patents in lithium-ion batteries were strongly promoted, and China now leads the world in lithium-ion battery patents. Chinese firms have also spearheaded advances in lithium iron phosphate (LFP) battery chemistry. Thanks to this broad policy support, China's EV market and industry have scaled dramatically, and Chinese firms like BYD, CATL and SAIC have become world leaders in EV and battery manufacturing.

Policy in China has recently begun to shift away from supporting EV scale-up towards promoting high-quality development of the country's EV automotive

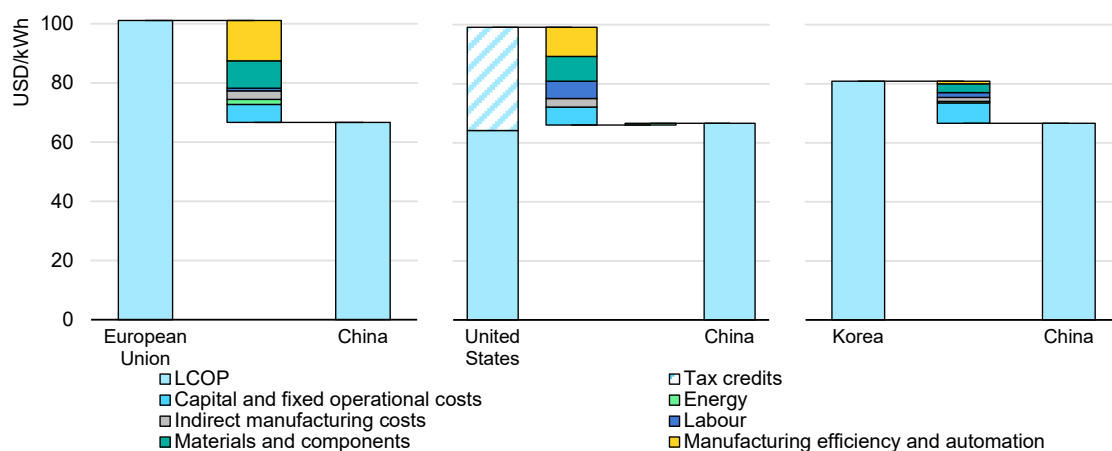
industry. In 2026, the [purchase tax exemption](#) for NEVs was replaced with a 50% exemption, along with new [technical requirements](#) determining eligibility. From the beginning of 2028 there will no longer be any purchase tax exemption for NEVs. In addition, after 15 years of benefiting from vehicle tax exemptions, from the beginning of 2027, plug-in hybrid electric cars – including extended range electric vehicles – will be subject to [annual vehicle ownership taxes](#), in the order of CNY 360-660 (Yuan renminbi) (USD 50-90). While this policy change does not affect battery electric personal cars, ownership taxes will start to be applied to battery electric commercial vehicles. Finally, [new rules](#) published in July 2026 will phase in consumption taxes on batteries, starting at 2% in April 2027 and increasing to 4% in April 2028. As a result, EV manufacturers who produce their own batteries will have the advantage of being able to avoid the consumption tax; for EV manufacturers sourcing batteries externally, the 2% tax rate could increase the cost of producing an electric car by over USD 100 or almost 1%. The taxes apply to mature battery technologies, notably lithium-ion batteries, while sodium-ion and solid-state batteries will remain tax free until the end of 2028, providing an incentive to develop and commercialise those technologies.

Domestic competition made EV manufacturing cost-competitive in China, but manufacturer margins are low

China's electric car industry now enjoys a significant cost advantage over its global competitors, achieved through scale, integration and innovation. Producing a battery electric car in China is around 35% cheaper than in advanced economies. This is partly a result of structural factors: labour and operating costs are lower in China, and the country's industrial logistics are highly efficient, benefiting from decades of manufacturing experience.

The EV cost gap is largely driven by China's leadership on battery manufacturing. Battery packs account for roughly one-third of a battery electric car's direct production cost, and the gap in average battery prices between China and Europe and North America has grown over the past year. In 2025, EV batteries were about 35% cheaper in China than in Europe, compared to around 30% cheaper in 2024, and are now 30% cheaper than in North America, from 25% in 2024. Chinese battery giants have achieved their cost-competitiveness through massive scale and learning-by-doing, as well as by advancing cheaper chemistries such as LFP. China's integrated domestic supply chain – from mineral refining to cell production to vehicle assembly – further reduces costs by eliminating inefficiencies and import dependencies.

Decomposition of the production cost gap for lithium nickel cobalt manganese oxide battery cells between China and selected countries and regions, 2024



IEA. CC BY 4.0.

Notes: LCOP = levelised cost of production. Based on the LCOP, which corresponds to the price that would have to be charged per unit of production to achieve a net present value of zero for a given investment. The “manufacturing efficiency and automation” cost category is directly proportional to scrap rates and production-line downtime and inversely proportional to automation levels of production processes. Labour in the European Union is calculated as the production weighted average of labour costs in 2024, when the majority of production was concentrated in Poland and Hungary. Indirect manufacturing costs include administration, retail and R&D costs. Energy prices are for the overall industrial sector. Source: IEA (2026), [Energy Technology Perspectives 2026](#).

Intense competition in China’s EV market has also pressured manufacturers to streamline operations, cut prices and accept narrower profit margins. For example, BYD [reportedly](#) eliminated around 100 000 positions in 2025 to better optimise costs and improve operational efficiency. The domestic Chinese EV landscape is crowded with both established state-backed automakers and dozens of new entrants, including pure-play EV start-ups. Average profit margins for Chinese automakers are often below those of traditional Western and Japanese rivals. Chinese EV manufacturers have prioritised scaling up production and innovation over short-term profitability, reinvesting earnings to expand capacity, improve technology and undercut competitors on price. This strategy, supported by patient domestic investors and government policies, has yielded dramatic growth in sales and global presence. However, the [sustainability](#) of this intense domestic competition has led to suggestions that [market consolidation](#) is already underway – with more traditional ICE-focused companies [exiting](#) the market first – and may accelerate.

There are strategies that can help close the competitiveness gap with China

Strengthening EV cost-competitiveness requires a co-ordinated focus on scale, batteries and manufacturing efficiency. Governments can enable this by creating stable demand signals, sharing early-stage investment risks and supporting skills and innovation, while avoiding permanent cost distortions. For automakers,

strategies may include prioritising high-volume EV platforms, deepening partnerships across the battery and supplier ecosystem, and adopting cost-competitive chemistries such as LFP, alongside continued R&D. Manufacturing efficiency and automation can account for a large share of cost differences in EV battery manufacturing, which can be closed with experience. Partnerships across the battery value chain – for example through joint ventures to co-locate battery cell plants – can accelerate learning-by-doing and transfer of manufacturing know-how. At the same time, diversifying battery material supply (and boosting recycling) can support long-term resilience and cost control.

Recent policy steps in this direction include Europe's battery support measures, such as the European Union's [Battery Booster](#) under the [Automotive Package](#) and the proposed [Industrial Accelerator Act](#), which seeks to ensure that foreign investment in strategic battery and EV value chains brings technology transfer, EU partnerships and supply chain integration. Industry is moving in a similar direction with OEMs increasingly entering battery manufacturing joint ventures to localise cell supply, reduce costs, secure technology access and comply with regional industrial policy.

Recent announcements reinforce OEM partnerships for EV manufacturing

Recent announcements underscore a growing trend in strategic partnerships between global automakers, increasingly centred on leveraging China's cost-competitive EV ecosystem while scaling deployment across major markets. In China, joint ventures remain a key entry point, with foreign OEMs deepening collaborations with domestic partners to access the large Chinese domestic market, manufacturing capacity, supply chains and local market expertise. For example, Stellantis has announced a more than CNY 8 billion project under its joint venture with Dongfeng Group to produce EVs in a factory in Wuhan intended for sales in the domestic Chinese and export markets. At the same time, such partnerships are being extended internationally, particularly into Europe, where joint ventures aim to combine Chinese technology and cost advantages with established local distribution networks and after-sales capabilities. For example, a non-binding Memorandum of Understanding (MoU) between Stellantis and Dongfeng Group agrees to [support](#) the sales and manufacturing of Dongfeng EVs in Europe, leveraging existing production capacity at Stellantis factories. Nissan and Chery have also signed an MoU to [explore](#) contract manufacturing in Nissan's Sunderland plant in the United Kingdom. Outside Europe, Renault has [partnered](#) with Geely in Brazil to produce and sell EV models, while Malaysia's Proton is [using](#) its partnership with Geely to develop and locally assemble EV models for the domestic Malaysian market.

More broadly, partnerships are evolving beyond traditional manufacturing alliances to encompass a wider range of activities, including joint engineering, purchasing and platform development. This reflects a growing recognition that competitiveness in EV markets depends not only on vehicle assembly, but also on access to integrated supply chains, battery technologies and software capabilities, such as those enabling aspects of automation. For example, Hyundai Motor Group is [expanding collaboration](#) with NVIDIA to advance next-generation autonomous driving technologies.

Recent announcements also highlight a shift towards the development of new business models, with automakers expanding into software-enabled services and forming cross-industry collaborations to accelerate EV deployment and improve profitability. In particular, Ford [announced](#) that their European commercial vehicle brand, Ford Pro, is evolving from vehicle manufacturer to “productivity partner” as part of their strategy for Ford Pro to generate a quarter of its earnings from software and services, which includes using connected vehicle data and predictive intelligence to identify issues for their customers before they become problems.

In parallel, the geographic footprint of EV production is expanding into emerging markets, supported by a combination of policy incentives and partnerships between domestic and international firms. In Brazil, for example, a wave of announcements points to increasing localisation of EV manufacturing, with [Chinese OEMs](#) (such as BYD, Great Wall Motors, SAIC and Geely) both investing directly in production facilities and leveraging partnerships with incumbent manufacturers (such as General Motors and Renault) to utilise existing capacity. This hybrid approach – combining greenfield investment with joint production – is enabling rapid market entry while limiting upfront costs and risks.

These developments indicate that partnerships are becoming a central pillar of automakers’ EV strategies. They enable faster scaling, facilitate technology transfer and support market access across regions. At the same time, they reflect intensifying global competition, with Chinese firms playing an increasingly prominent role not only as manufacturers, but also as providers of technology and industrial ecosystems shaping the next phase of the automotive transition.

Annex

Abbreviations and acronyms

ACEA	European Automobile Manufacturers' Association
AEs	advanced economies
BEV	battery electric vehicle
CAAM	China Association of Automobile Manufacturers
CPCA	China Passenger Car Association
CNY	Yuan renminbi
EAFO	European Alternative Fuels Observatory
EMDE	emerging market and developing economy
EUR	Euro
EV	electric vehicle
FCEV	fuel cell electric vehicle
HEV	hybrid electric vehicle
ICEV	internal combustion engine vehicle
LFP	lithium iron phosphate
MoU	Memorandum of Understanding
NEV	new energy vehicle
OEM	original equipment manufacturer
SDV	software-defined vehicle
THB	Thai baht
USD	United States dollar

See the [IEA glossary](#) for a further explanation of many of the terms used in this report.

Regional groupings

Advanced economies: Australia, Austria, Belgium, Bulgaria, Canada, Chile, Colombia, Costa Rica, Croatia, Cyprus,^{1,2} Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel,³ Italy,

¹ Note by Republic of Türkiye: The information in this document with reference to “Cyprus” relates to the southern part of the island. There is no single authority representing both Turkish and Greek Cypriot people on the island. Türkiye recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Türkiye shall preserve its position concerning the “Cyprus issue”.

² Note by all the European Union Member States of the OECD and the European Union: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Türkiye. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

³ The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD and/or the IEA is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Japan, Korea, Latvia, Lithuania, Luxembourg, Malta, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Türkiye, United Kingdom and United States.

Africa: Algeria, Angola, Benin, Botswana, Cameroon, Côte d'Ivoire, Democratic Republic of the Congo, Egypt, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Ghana, Kenya, Kingdom of Eswatini, Libya, Madagascar, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, Republic of the Congo (Congo), Rwanda, Senegal, South Africa, South Sudan, Sudan, United Republic of Tanzania (Tanzania), Togo, Tunisia, Uganda, Zambia, Zimbabwe and other African countries and territories.⁴

Asia Pacific excluding China: Southeast Asia regional grouping and Australia, Bangladesh, Democratic People's Republic of Korea (North Korea), India, Japan, Korea, Mongolia, Nepal, New Zealand, Pakistan, Sri Lanka, Chinese Taipei, and other Asia Pacific countries and territories.⁵

Caspian: Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan.

Central and South America: Argentina, Plurinational State of Bolivia (Bolivia), Bolivarian Republic of Venezuela (Venezuela), Brazil, Chile, Colombia, Costa Rica, Cuba, Curaçao, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Nicaragua, Panama, Paraguay, Peru, Suriname, Trinidad and Tobago, Uruguay and other Central and South American countries and territories.⁶

China: Includes (The People's Republic of) China and Hong Kong, China.

Emerging market and developing economies: All other countries not included in the advanced economies regional grouping.

Eurasia: Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, the Russian Federation (Russia), Tajikistan, Turkmenistan and Uzbekistan.

Europe: European Union regional grouping and Albania, Belarus, Bosnia and Herzegovina, Gibraltar, Iceland, Israel,⁷ Kosovo, Montenegro, North Macedonia,

⁴ Individual data are not available and are estimated in aggregate for: Burkina Faso, Burundi, Cabo Verde, Central African Republic, Chad, Comoros, Djibouti, Gambia, Guinea, Guinea-Bissau, Lesotho, Liberia, Malawi, Mali, Mauritania, Sao Tome and Principe, Seychelles, Sierra Leone and Somalia.

⁵ Individual data are not available and are estimated in aggregate for: Afghanistan, Bhutan, Cook Islands, Fiji, French Polynesia, Kiribati, Macau (China), Maldives, New Caledonia, Palau, Papua New Guinea, Samoa, Solomon Islands, Timor-Leste, Tonga and Vanuatu.

⁶ Individual data are not available and are estimated in aggregate for: Anguilla, Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, Bermuda, Bonaire, Sint Eustatius and Saba, British Virgin Islands, Cayman Islands, Dominica, Falkland Islands (Malvinas), Grenada, Montserrat, Saint Kitts and Nevis, Saint Lucia, Saint Pierre and Miquelon, Saint Vincent and the Grenadines, Saint Maarten (Dutch part), Turks and Caicos Islands.

Norway, Republic of Moldova, Serbia, Switzerland, Türkiye, Ukraine and United Kingdom.

European Union: Austria, Belgium, Bulgaria, Croatia, Cyprus,^{5,6} Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain and Sweden.

Latin America: Central and South America regional grouping and Mexico.

Middle East: Bahrain, Islamic Republic of Iran (Iran), Iraq, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syrian Arab Republic (Syria), United Arab Emirates and Yemen.

North Africa: Algeria, Egypt, Libya, Morocco and Tunisia.

Other Africa: Angola, Benin, Botswana, Burkina Faso, Burundi, Cabo Verde, Chad, Côte d'Ivoire, Djibouti, Cameroon, Central African Republic, Democratic Republic of the Congo, Comoros, Eritrea, Ethiopia, Equatorial Guinea, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Kingdom of Eswatini, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Republic of the Congo (Congo), Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Somalia, South Sudan, Sudan, United Republic of Tanzania (Tanzania), Togo, Uganda, Zambia and Zimbabwe.

North America: Canada, Mexico and United States.

Southeast Asia: Brunei Darussalam, Cambodia, Indonesia, Lao People's Democratic Republic (Lao PDR), Malaysia, Myanmar, Philippines, Singapore, Thailand and Viet Nam. These countries are all members of the Association of Southeast Asian Nations (ASEAN).⁷

⁷ Timor-Leste joined ASEAN on 26 October 2025 and is excluded from this grouping for this publication, but is included in aggregate within the overarching Asia Pacific excluding China group.

International Energy Agency (IEA)

This work reflects the views of the IEA Secretariat but does not necessarily reflect those of the IEA's individual Member countries or of any particular funder or collaborator. The work does not constitute professional advice on any specific issue or situation. The IEA makes no representation or warranty, express or implied, in respect of the work's contents (including its completeness or accuracy) and shall not be responsible for any use of, or reliance on, the work.



Subject to the IEA's [Notice for CC-licensed Content](#), this work is licenced under a [Creative Commons Attribution 4.0 International Licence](#).

This document, as well as any data and map included herein, are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

Unless otherwise indicated, all material presented in figures and tables is derived from IEA data and analysis.

IEA Publications International Energy Agency Website: www.iea.org

Contact information: www.iea.org/contact

Typeset in France by IEA - July 2026

Cover design: IEA

Photo credits: © Shutterstock

